

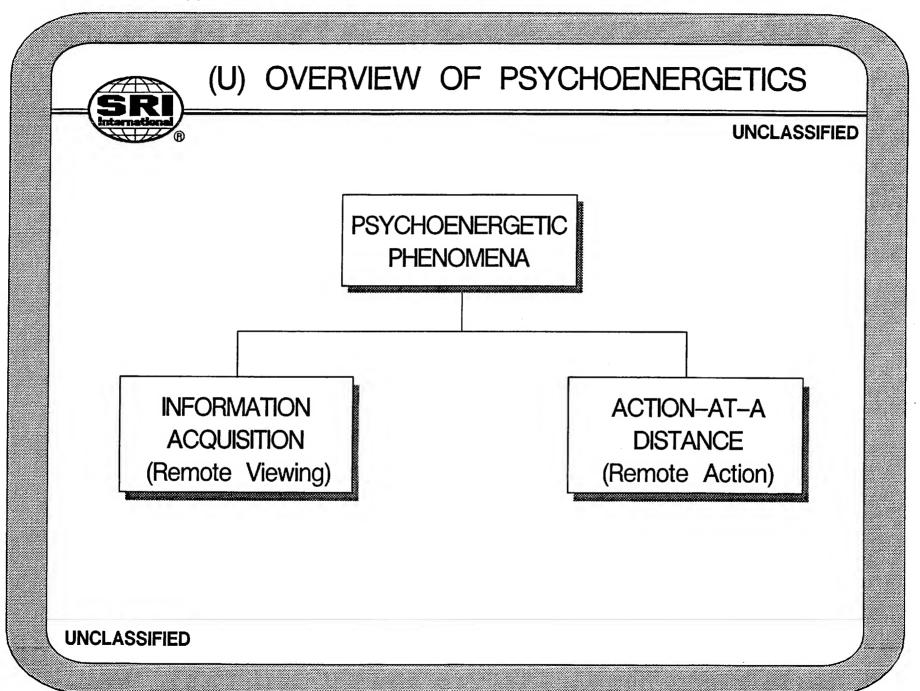
**UNCLASSIFIED** 

# (U) COGNITIVE SCIENCES PROGRAM

(U) SRI INTERNATIONAL, MENLO PARK

(U) May 1989

CONTAINS S/NF MATERIAL - SO MARKED.





# (U) DEFINITIONS

**UNCLASSIFIED** 

- (U) REMOTE VIEWING (RV)
  - (U) The acquisition of information that would normally not be available because of spatial or temporal distance or shielding.
- (U) REMOTE ACTION (RA)
  - (U) Interaction with matter that would normally not be allowed because of spatial or temporal distance or shielding.

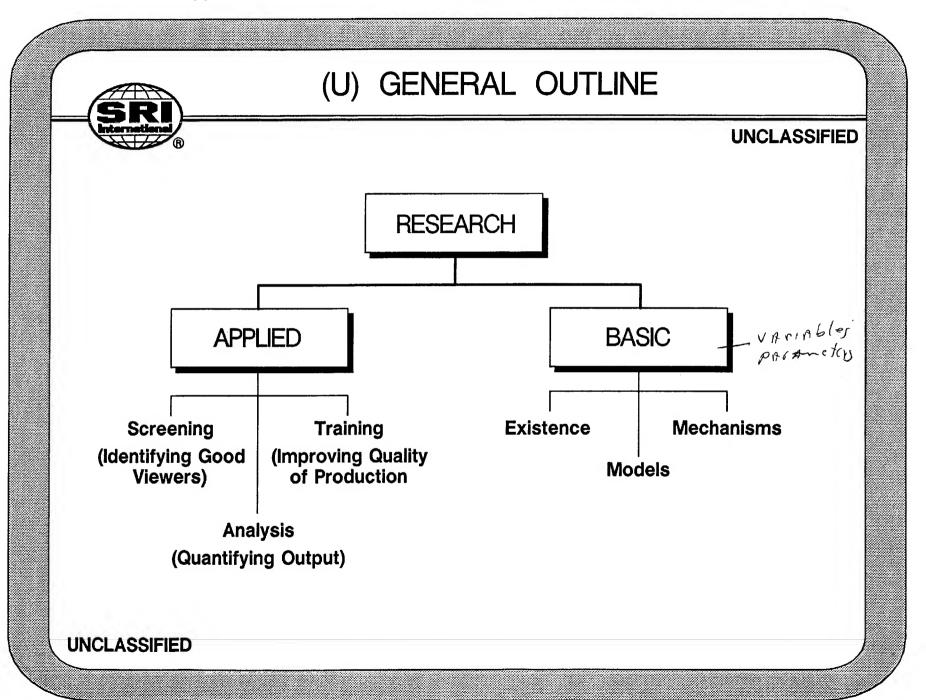


# (U) REMOTE VIEWING PROTOCOL — A SCHEMATIC

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TIME	EVENT
10:00	Monitor and Viewer are Sequestered
10:05	Assistant Randomly Selects Photograph from a Set of 100
10:10	Remote Viewing Begins
10:25	Remote Viewing Ends
10:30	Monitor Copies RV Output and Obtains Target Photograph
10:35	Monitor Displays Target Photograph and Copied Response to Viewer

UNCLASSIFIED Session judged
Results





# (U) EXISTENCE — APPLIED

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• (S/NF) OPERATIONAL UTILITY

<del>CEONET</del>



### (U) EXISTENCE — BASIC

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- (U) TECHNICAL REVIEWS (META-ANALYSES) ~ 5 \*P(+1)
  - (U) SRI Cognitive Sciences Program (1972 – 1988)
  - (U) Non-SRI Remote Viewing (1976 – 1988)
  - (U) Random Number Generator Experiments (1969 – 1987)
  - (U) Forced-Choice Precognitive Remote Viewing (1935 – 1987)



#### (U) COGNITIVE SCIENCES PROGRAM 1972-1988 - I



- (U) DATABASE DOMAIN
  - (U) 117 Documents (5025 Pages)
  - (U) All Experiments; Formal and Pilot
- (U) MAJOR RESULTS
  - (S/NF) Across All Experiments, Odds Against Chance Are Better Than 2 x10<sup>20</sup> to 1
  - (S/NF) Magnitude of the Remote Viewing Effect Qualifies as "Large" According to Accepted Behavioral Science Standards
  - (S/NF) Remote Viewing is Repeatable and Robust

CECDET



#### (U) COGNITIVE SCIENCES PROGRAM 1972-1988 - II

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- (U) RESULTS SPECIFIC
  - (S/NF) Remote Viewing Does Not Degrade Over Time
  - (S/NF) Quality is Independent of Target Distance or Size
  - (S/NF) Natural Scenes are Significantly Better Targets Than are Symbols or Numbers
  - (S/NF) Electromagnetic Shielding is not Effective
  - (S/NF) Potential Neurophysiological Indicator has Been Identified

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#### (U) NON-SRI REMOTE VIEWING 1976-1988

**UNCLASSIFIED** 

- (U) DATABASE DOMAIN
  - (U) 20 Individual Studies
  - (U) Over 400 Remote Viewing Trials
- (U) MAJOR RESULTS
  - (U) Across All Experiments, Odds Against Chance Are Better Than  $2 \times 10^9$  to 1
  - (U) Magnitude of the Remote Viewing Effect is Statistically Equivalent to the SRI Results
  - (U) Remote Viewing is Repeatable and Robust



#### (U) RANDOM NUMBER GENERATORS 1969-1987

**UNCLASSIFIED** 

- (U) DEFINITION
  - (U) In Random Number Generator Experiments (RNG) Individuals are Asked to Modify, by Mental Means Alone, the Otherwise Random Output of Hardware Devices
- (U) DATABASE DOMAIN
  - (U) 330 Individual Studies
  - (U) Over 10<sup>9</sup> Binary Bits
- (U) MAJOR RESULTS
  - (U) Across All Experiments, Odds Against Chance Are Better Than 2 x 10<sup>17</sup> to 1
  - (U) Magnitude of the RNG Effect is <u>Small</u> According to Accepted Behavioral Standards, but is Repeatable



#### (U) PRECOGNITIVE REMOTE VIEWING 1935-1987

UNCLASSIFIED

- (U) DEFINITION
  - (U) In Forced-Choice Precognitive Remote Viewing Experiments, the Target Material (Numbers or Symbols) is Generated <u>After</u> the Remote Viewing is Completed
- (U) DATABASE DOMAIN
  - (U) 309 Individual Studies
  - (U) Nearly 2 × 10<sup>6</sup> Separate Trials
- (U) MAJOR RESULTS
  - (U) Across All Experiments, Odds Against Chance Are Better Than  $5 \times 10^{29}$  to 1
  - (U) Magnitude of the Effect is Small According to Accepted Behavioral Standards, but is Repeatable



#### (U) SCREENING FOR HIGH-QUALITY REMOTE VIEWERS

SECRET

- (U) RESULTS TO DATE
  - (S/NF) Approximately 1% of the General Population Possess a Natural Talent for Remote Viewing
  - (S/NF) Personality and Neuropsychological Variables are Marginally Useful
  - (S/NF) Preliminary Data Suggests that High Scores on the Standford Hypnotic Susceptibility Scale Indicate Natural Remote Viewing Ability
  - (S/NF) Selecting Sub-populations Significantly Improves Screening Efficiency
  - (S/NF) Preliminary Data Suggests a Possibility of a Neurophysological Indicator for Natural Remote Viewing Ability

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#### GOALS

- Confirm previous findings that hypnosis facilitates psi processes.
- Begin a data base for comparing susceptibility and psi ability.
- Enhance the RV process and produce higher quality viewings.



- PILOT STUDY
  - Experienced hypnotist hired to:
    - ▶ Administer Stanford Hypnotic Susceptibility Scale.
    - ▶ Develop individually specific induction and RV protocols.
    - **▶** Conduct hypnosis sessions.
  - Target pool consisted of 200 National Geographic photos.
  - One experienced viewer participated in 24 remote viewings, 12 prior to one of two treatment conditions; 6 following a hypnotic induction and 6 following a proofreading task.



- RESULTS
  - No evidence of RV in pre-treatment condition.
  - Significant evidence of RV following hypnosis.



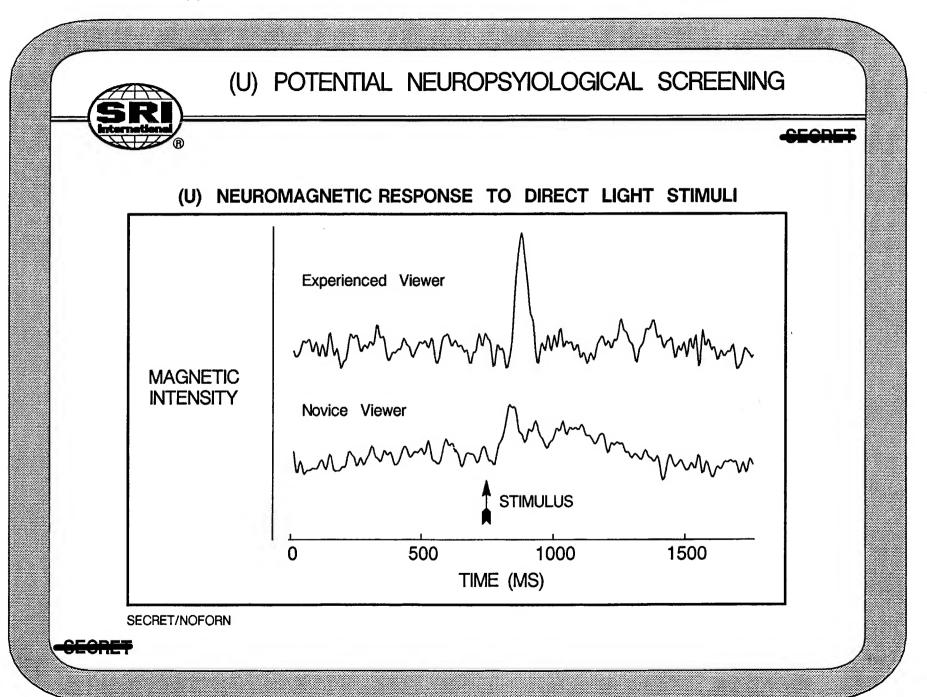
- SECOND STUDY
  - RV sessions conducted while in trance.
  - Two viewers participated in 16 trials each.



- CURRENT ACTIVITY
  - Used same protocol as pilot study.
  - Two viewers are participating in 20 trials (40 remote viewings) each.
  - One viewer complete shows trend toward enhanced RV in hypnotic condition.



- HUMAN USE ISSUES
  - Much sensationalism accompanies media portrayal of hypnotic phenomenon.
  - Hypnosis is a poorly defined term.
  - Hypnosis designated "at risk" by DHEW.
- EXPERIMENTAL STUDIES VS. CLINICAL REPORTS
  - Clinical evidence based on anecdotal reports and opinions with psychiatric populations.
  - Experimental studies use more mentally stable populations, are of relatively short duration, do not elicit emotional responses and use structured and benign hypnotic suggestions and procedures.
  - Experimental studies show hypnotic procedures causing no more harmful aftereffects than common experiences such as taking exams, attending classes, verbal learning and college life in general.





#### (U) FUTURE APPLIED RESEARCH - SCREENING



- (U) CONFIRM NEUROPHYSIOLOGICAL RESULTS
- (U) CONFIRM HYPNOTIC SUSCEPTIBILITY RESULTS
- (U) SCREEN SPECIFIC POPULATIONS
- (S/NF) TEST SELECTED INDIVIDUALS UNDER OPERATIONAL CONDITIONS

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#### (U) IMPROVING REMOTE VIEWING QUALITY

SECRE

- (U) RESULTS TO DATE
  - (S/NF) Significant Improvement has Been Observed in Remote Viewing of Symbols (Single Viewer)
  - (S/NF) Qualitative Evidence for Improvement in Remote Viewing of Visual or Natural Targets
  - (S/NF) No Decline of Ability Over Time
  - (S/NF) A Preliminary Neurophysological Correlate to Remote Viewing Suggests the Possibility of Conditioning for Improved Quality

CEONET



### (U) FUTURE APPLIED RESEARCH - TRAINING

SECRET

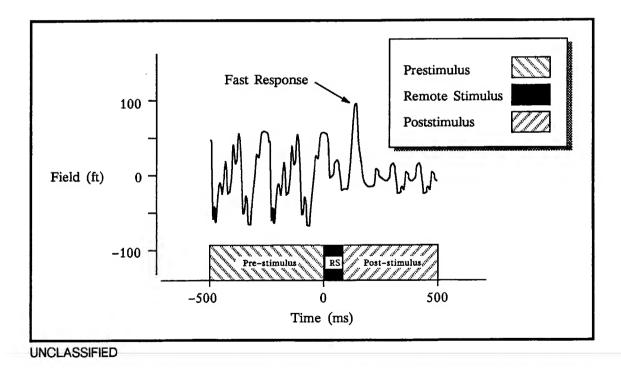
- (U) REVIEW EARLIER TRAINING PROTOCOLS FROM AN EX-PERIMENTAL PSYCHOLOGY PERSPECTIVE
  - (U) Develop Quantitative Testing Procedures
  - (U) Suggest Improvements to Existing Protocols
  - (S/NF) Create and Verify (Under Operational Conditions)
     New Training Procedures
- (U) VERIFY NEUROPHYSIOLOGICAL CORRELATE
- (S/NF) DETERMINE IF NEUROPHYSIOLOGICAL CONDITIONING IMPROVES QUALITY OF OPERATIONAL DATA



# (U) NEUROPHYSIOLOGY PROTOCOL - I

**UNCLASSIFIED** 

- (U) ISOLATED VIEWER
- (U) REMOTE LIGHT STIMULUS
- (U) MONITORING MAGNETIC ACTIVITY OF THE BRAIN

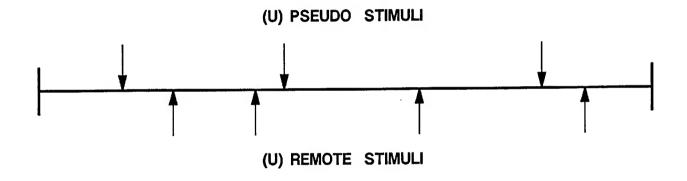




# (U) NEUROPHYSIOLOGY PROTOCOL - II

**UNCLASSIFIED** 

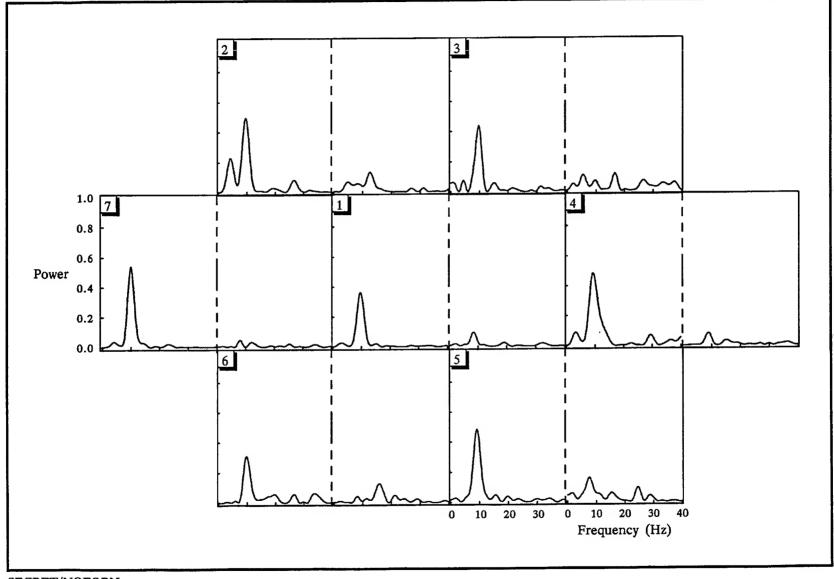
• (U) SINGLE RUN TIMING — 120 SECONDS



- (U) 10 RUNS OF APPROXIMATELY 100 TRIALS
- (U) SIGNAL AVERAGE +/- 0.5 SECONDS
- (U) POWER SPECTRUM FOR PRE- AND POST-STIMULUS

**SECRET** 

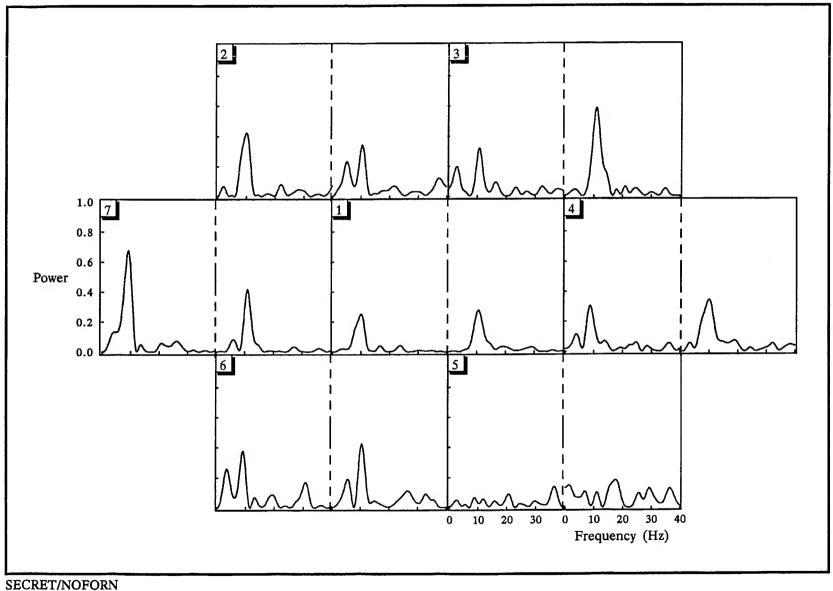
(U) POWER SPECTRA: -0.5 TO +0.5 SECONDS FROM REMOTE STIMULI - V002, 8/25/88



SECRET/NOFORN

**SECRET** 

(U) POWER SPECTRA: -0.5 TO +0.5 SECONDS FROM PSEUDO STIMULI - V002, 8/25/88





#### (U) REMOTE VIEWING ANALYSIS - PROBLEM

SECRET

- (U) PROVIDE QUANTITATIVE ASSESSMENT OF REMOTE VIEWING RESPONSES UNDER TWO SITUATIONS
  - (U) Laboratory Experiments Targets Known
  - (S/NF) Operations Targets Generally Unknown



#### (U) REMOTE VIEWING ANALYSIS - DEFINITIONS

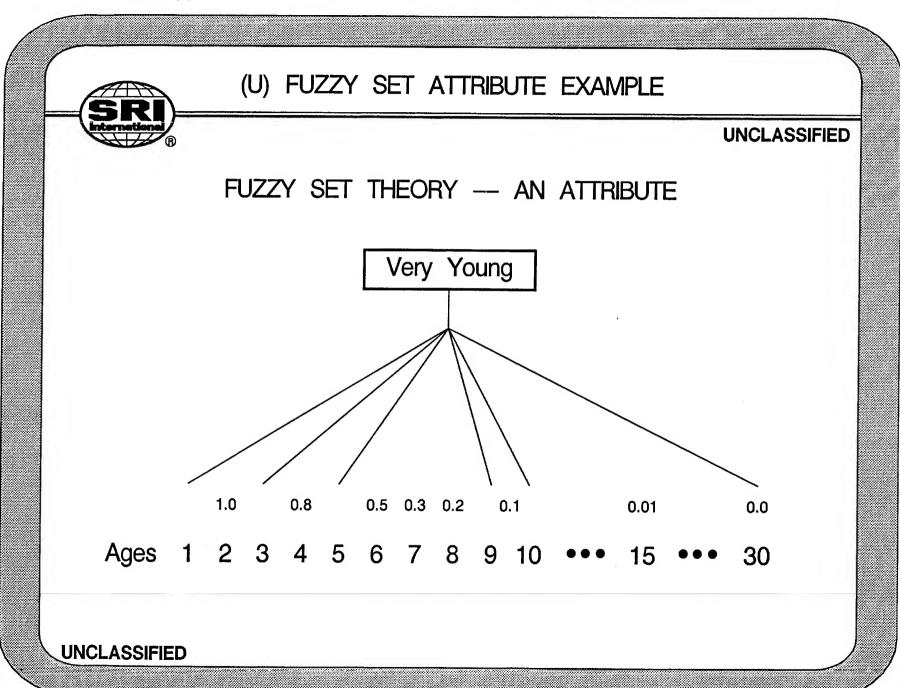
**UNCLASSIFIED** 

• (U) TARGET

A crisp set (T) of attributes derived from a fuzzy set with a specified alpha—cut and mission definition (e.g., visual impact on scene).

• (U) <u>RESPONSE</u>

A fuzzy set (R) of attributes defined as an analyst's estimate of presence or absence from the response.





### (U) FIGURE OF MERIT (FM) — DEFINITIONS

**UNCLASSIFIED** 

- (U) ACCURACY Percent of target described correctly.
- (U) <u>RELIABILITY</u> Percent of response that is correct.
- (U) <u>FM</u> Accuracy times reliability.

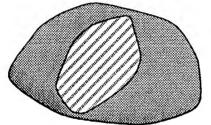


### (U) FIGURE OF MERIT (FM) — SETS

**UNCLASSIFIED** 

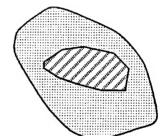
#### ATTRIBUTE SPACE

SET THEORY

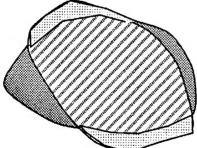


Reliable But Imprecise

Low Figure-of-Merit

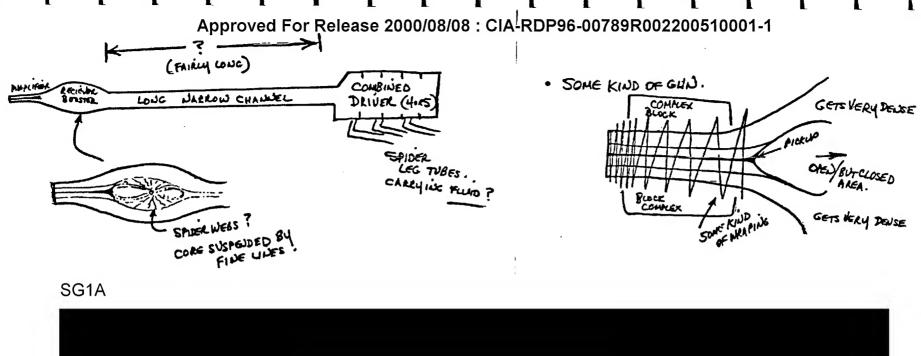


Accurate But Noisy Low Figure-of-Merit



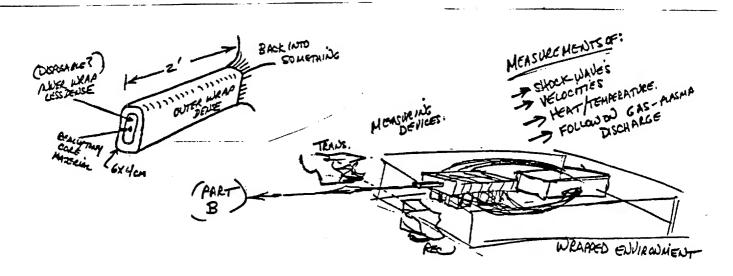
Reliable and Accurate High Figure-of-Merit

**Target** Response Overlap



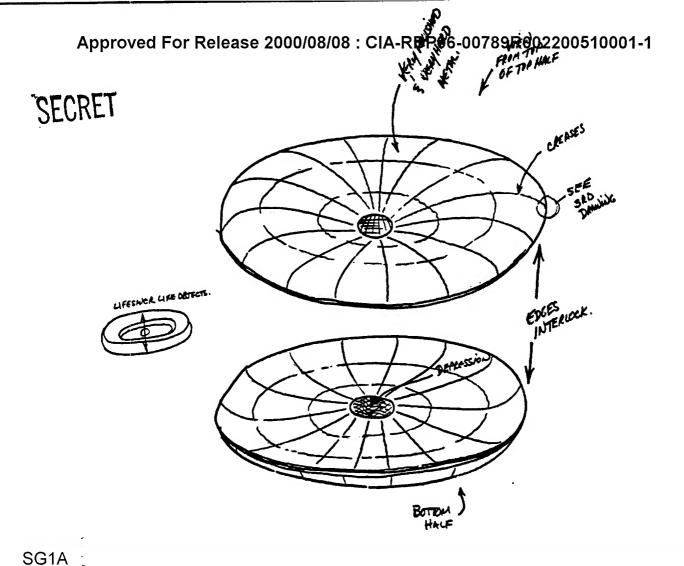


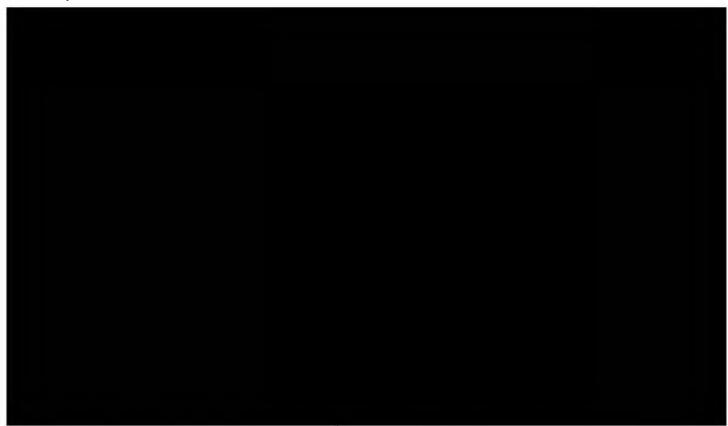
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SG1A



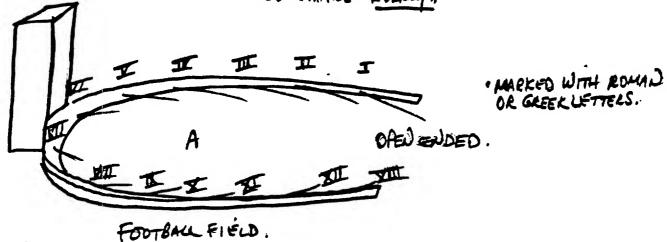




Approved For Release 2000/08/086: CEREPOSE -00789R002200510001-1

# Approved For Release 2000/08/08 : CIA-RDP96-06-789-R002200510001-1

- . GROUND FOCAL AREA.
- SPECIFICALLY CA'D OUT FOR "CATCHING"
  SOMETHING" EVELLY"



SG1A



SECRET/NOFORN

(S/NF) FIGURE 4 VIEWER 372: POSSIBLE RESPONSE TO THE SOLAR FACILITY



# (U) SIMULATED OPERATIONAL APPLICATION — RESULTS

SECRET

Element Type	N	T ∩R	<b> </b> T	R	Acc.	Rel.	М
FUNCTIONS RELATIONSHIPS OBJECTS	8 16 48	10.00 15.25 46.70	11.40 21.95 56.70	12.43 23.65 73.42	0.88 0.69 0.82	0.80 0.64 0.64	0.70 0.44 0.52
TOTAL	72	_	_	-	0.80	0.71	0.57

SECRET/NOFORN



#### (U) DECISION AUGMENTATION — A HEURISTIC MODEL

- (U) MANY COMPLEX INPUTS TO A DECISION
  - (U) Real-time Information
  - (U) Past Experience
  - (U) Intuition
  - (U) Others
- (U) THE MODEL PROPOSES ONE ADDITIONAL INPUT
  - (U) A Weak Statistical Bias Which is Mediated by Some Form of Psychoenergetic Functioning



### (U) EVIDENCE FOR PRECOGNITION

**UNCLASSIFIED** 

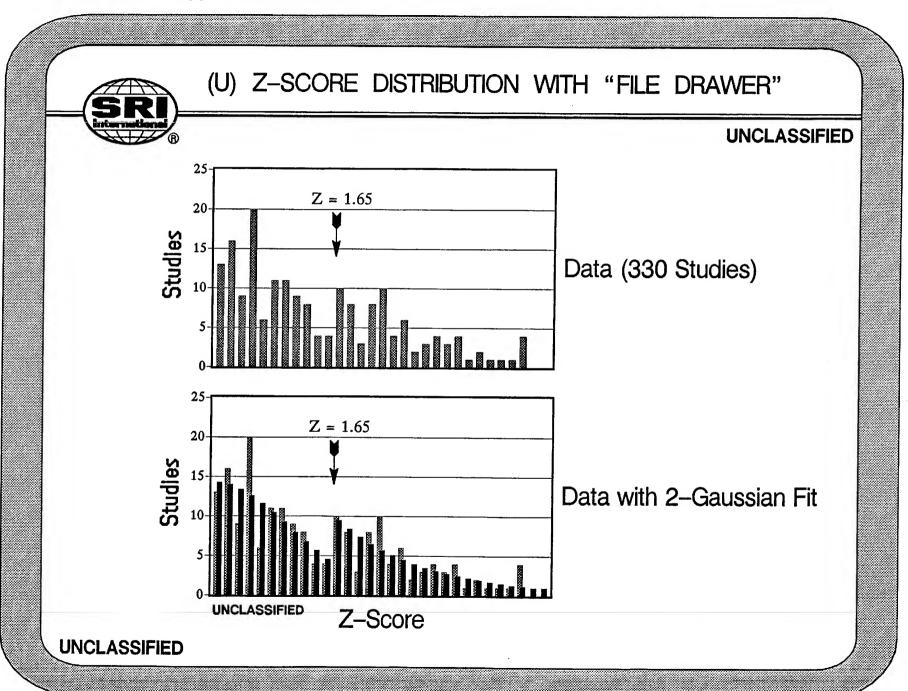
- (U) META-ANALYSIS OF FORCED-CHOICE EXPERIMENTS
  - (U) 309 Experiments
  - (U) 62 Senior Authors
  - (U) 50,000 Subjects
  - (U) 2 Million Individual Trials
  - (U) 52 Years
- (U) METHOD
  - (U) "File Drawer" Experiments Not Published
  - (U) 8-Point Quality Rating Blinds, Controls, etc.
- (U) OVERALL RESULTS
  - (U) Combined Effect of 11.4  $\sigma$
  - (U) No Correlation With Quality
  - (U) Experiment Quality Correlates With Year-of-Publication
     (U) r = 0.239, df = 307, p ≤ 7.2 x 10<sup>-5</sup>



(U) BINARY RANDOM NUMBER GENERATOR - PROTOCOL

**UNCLASSIFIED** 

- (U) SINGLE BUTTON PRESS
- (U) COLLECT N BINARY BITS
  - (U) Task is to "Force" as Many 1's as Possible
- (U) CALCULATE SCORE





#### (U) DECISION AUGMENTATION — CONCEPTS

**UNCLASSIFIED** 

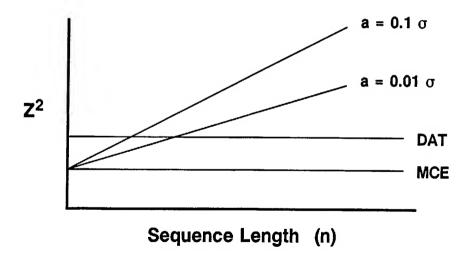
- (U) THREE POSSIBLE OBSERVATIONS OF THE DATA
  - (U) Nothing is Happening Mean Chance Expectation
  - (U) Causal Interaction Remote Action
  - (U) Informational Interaction Precognition
    - ► (U) Individuals are Able to Anticipate the Locally Deviant Sub-sequences
- (U) ASSUMPTIONS
  - (U) MCE—Unperturbed Parent and Sampling Distributions
  - (U) RA-Slightly Perturbed Parent Distribution
  - (U) Unperturbed Parent and Biased Sampling Distribution



#### (U) DECISION AUGMENTATION — FORMULATION

**UNCLASSIFIED** 

• (U) PROBLEM: TO CALCULATE E(Z2) FOR EACH CONCEPT



(U) RNG DATA — 1984 **UNCLASSIFIED**  $10^{3}$  $a = 0.1 \sigma$  $Z^2 = 2.167 + 0.000 \,\mathrm{n}$  $p \le 2.95 \times 10^{-9}$  $a = 0.01 \sigma$ 10<sup>2</sup> 10<sup>1</sup> DAT 10° MCE  $Z^2$ 10-1 10-2 10-3 10-4  $10^{3}$ 104 106 107 10<sup>2</sup> 105 Sequence Length (n) **UNCLASSIFIED** 

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### (U) PHYSICS SPECULATION ON PRECOGNITION - II

**UNCLASSIFIED** 

- (U) MUST BE ENERGY TRANSFER WITH INFORMATION TRANSFER
- (U) ENTROPY CONCEPTS ARE VALID
  - (U) Anecdotal Observations
    - ▶ (U) High Changes of Entropy are Viewed More Easily
    - ▶ (U) Dynamic Targets (e.g., video tape) are Viewed More Easily Than Static Photographs
    - ▶ (U) Natural Site are Viewed More Easily Than Static Photographs



#### (U) PHYSICS SPECULATION ON PRECOGNITION - I

**UNCLASSIFIED** 

- (U) SECOND LAW IS VALID
  - (U) At Micro-level
  - (U) In the Classical World
  - (U) Cosmological (i.e., Surface Areas of Black Holes)
- (U) PRECOGNITION IS VALID
  - (U) Meta-analysis and Other Evidence
- (U) THEREFORE PRECOGNITION <u>MUST</u> BE A STOCHASTIC PROCESS